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*Expenditure in India on Public Works from 1837-8 to 1845-6,
inclusive. By LIEUT.-COLONEL W. H. SYKES, F.R.S.*

[Read before the Statistical Society of London, 18th March, 1850.]

VERY indefinite ideas obtaining in Europe, with respect to the number and character of Public Works carried on in India, and with respect to the sums actually expended annually upon them at the different Presidencies, I have thought it right to have the following tables framed from the official records; an inspection of which will show, at a glance, not only the various works carried on, but the sums expended upon each class of works. It is necessary to premise that under the head of Embankments and Tanks, the original cost of prodigious works at the different Presidencies, amounting to millions sterling, is not included in the table; the expenditure under the head of Embankments and Tanks being, for the most part, an annual outlay for keeping these works in an efficient state of repair. The first year in the table, 1837-8, is the year of the preparations for the disastrous and expensive Affghan campaigns, which occasioned a loss to the State of several millions sterling, and embarrassed the Indian finances. Nevertheless, in that year 173,591*l.* were laid out on public works in India, and in the succeeding year, when the army was in Affghanistan, and great field equipments were maintained, 323,889*l.* were disbursed for works of peace, nearly a third of the sum being laid out at Madras, 40,000*l.* of it being upon roads and bridges. Even in the year 1841-2, when matters appeared with so sinister an aspect in Affghanistan, above 300,000*l.* were disbursed from the impoverished treasures upon works of utility; 103,586*l.* in Bengal, 72,425*l.* in the N. W. Provinces, 83,979*l.* in Madras, and 40,852*l.* in Bombay. During the remaining years, though the finances were burthened by the cost of the military operations for the punishment of the Affghans; by the conquest of Scinde, which entailed an annual loss of nearly three quarters of a million sterling; and by the expenses of the Gwalior campaign and first Sikh war; in no year was a less sum than 200,000*l.* expended for public works; and during the nine years under review, 2,282,894*l.* were expended on peaceful objects, averaging 253,654*l.* sterling per annum,—these disbursements, in fact, being abstracted from the loans for carrying on the wars in Affghanistan, Scinde, Gwalior, and the Punjab. Subsequently to 1845-6 the second Sikh war took place, but the outlay for peaceful purposes has, nevertheless, continued; nearly a million sterling has been granted for the Ganges canal, now in rapid progress;—40,000*l.* or 50,000*l.* for works on the Gadavery river, and 5 per cent. interest has been guaranteed on very large sums to be devoted to railways. Another great work, the triangulation, geographical delineation, and revenue survey of India has been in constant progress for more than half a century—and upon this great object more than a million sterling must have been spent.

The canals in the north-west provinces consist of the Delhi canals, (Delhi and Feroz,) or the Western Jumna;—the Doab canal, or Eastern Jumna;—and the Ganges canal. The entire length of the Delhi canals is 425 miles, (Delhi 185, and Feroz 240,) and the cost 314,380*l.* to the 1st of May, 1844. The length of the Doab canal, or Eastern Jumna, is 135 miles, and the cost 169,842*l.*; and upon both canals.

since their restoration, a sum of 557,000*l.* has been laid out. These canals were originally established under the Mogul Emperors, but fell into a state of entire dilapidation and disuse. The Delhi canal was re-opened by the British Government in 1819, Feroz's in 1825, and the Doab in 1830. The Ganges canal, now in progress of execution, will run for 452 miles, from Hurdwar to Allahabad : the estimate by the longest line was 922,699*l.*, to which, in all probability, 50 per cent. may be added on the completion of the work. Recently, 150,000*l.* have been sanctioned for works upon the Kistna river.

It is also necessary to be noticed, that a large amount of labour on certain classes of public works is performed by convicts, and that the charge for their maintenance, though a real addition to the Government expenditure, does not appear in the following table. It is defrayed in the Judicial Department, and is not susceptible of being readily added to the other charges in a distinctive form.

For the public weal also, above 100,000*l.* have been spent in cotton experiments by the Government of India; and it has been most satisfactorily proved that not only cotton, with a staple suitable for the cotton machinery of England and the wants of the manufacturers, can be produced to a great extent, but it has also been proved by the sale prices in Liverpool and Manchester, that if European capital and private enterprise were engaged in the cultivation of cotton in certain parts of India, the returns would be remunerative to the speculator, and establish a basis of permanent security to the cotton manufacturing interest of Great Britain.

On the whole, although less may have been spent upon public works than India, with its area, population, and revenue, might fairly demand, and the governing bodies certainly desired ; yet considering the untoward, although successful wars, and the consequent necessity for an annual increase to the public debt, a good deal has nevertheless been done with borrowed money ; and the time is fast approaching when continued peace will leave a surplus revenue to be annually devoted to the extension of lines of communication, whether canal, rail, or road, and to other purposes for the *further* development of the acknowledged resources of India.

Area and Population of British India.

	Area in Square Miles.	Population.
Bengal—		
Lower Provinces	165,443	39,582,090
North-Western Provinces	71,985	23,199,668
British Territory under Supreme Government:		
Saugor and Nerbudda Territories	24,870	2,545,611
British Territory under Agra Government :		
Mairwara, Ajmeer, &c.	13,885	638,595
Madras	144,858	15,882,920
Bombay	119,822	9,297,507
	540,863	91,146,391*

* Independently of Native States.

STATEMENT showing the Amount Expended in India on account of Public Works in each of the following Years—

1851.]

from 1837-8 to 1845-6, inclusive.

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Year.	BENGAL.			NORTH-WEST PROVINCES.					
	Roads and Bridges.	Embankments.	Canals, &c.	Total.	Roads.	Bridges.	Canals.	Tanks, Wells and Embankments.	Total.
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1837-38 ... 1,49,274 1 8	1,26,812 1 4	29,733 2 10	5,94,820 1 11	53,151 1 11	1,46,743 1 5	2,84,215 3 5	1,88,456 1 0	3,80,011 0 4	3,80,011 0 3
1838-39 ... 1,39,232 1 7	1,26,759 0 6	33,911 2 0	11,45,083 0 0	70,119 6 7	5,67,493 5 5	1,35,119 1 0	11,158 0 2	15,18,605 0 7	15,18,605 0 3
1839-40 ... 1,96,732 1 6	1,46,626 1 1	3,67,334 2 5	1,49,499 1 5	5,70,15 5	4,37,172 1 6	46,147 0 5	3,00,959 0 6	3,95,124 1 4	3,95,124 1 3
1840-41 ... 2,56,096 2 9	1,46,626 1 2	35,449 12 3	4,21,039 2 0	5,90,860 4 5	5,92,671 10 8	42,577 13 3	5,86,755 8 2	5,86,755 14 4	5,86,755 14 3
1841-42 ... 8,16,162 1 3	1,96,589 0 8	9,108 4 6	10,55,860 4 6	5,99,926 1 5	2,42,322 1 4	72,365 3 4	13,947 8 8	7,24,232 8 9	7,24,232 8 9
1842-43 ... 3,39,400 5 3	2,25,506 0 7	5,99,926 1 3	3,36,835 3 4	5,48,106 3 11	2,10,317 14 2	12,677 2 5	2,85,730 7 2	2,42,322 10 5	2,42,322 10 2
1843-44 ... 3,02,674 0 6	1,92,326 8 11	53,105 10 6	5,48,106 3 11	5,48,106 3 11	2,18,139 2 10	72,374 9 1	2,87,443 3 4	3,08,721 7 9	3,08,721 7 9
1844-45 ... 4,45,584 4 3	1,71,987 13 8	41,480 12 11	41,480 12 11	41,480 12 11	2,18,139 2 10	72,374 9 1	2,87,443 3 4	6,11,901 4 4	6,11,901 4 3
1845-46 ... 4,46,984 9 8	1,35,859 13 8	68,513 14 7	65,1,338 5 7	3,34,334 4 3	9,411 1 7	3,34,334 4 3	3,34,334 7 3	7,99,371 8 9	7,99,371 8 9
									Total Rupees
									64,60,556 0 7
									Average of 9 years Rupees
									7,17,889 8 11
Year.	MADRAS.			BOMBAY.					
	Tanks, Warehouses, and other works connected with Irrigation.	Roads, Bridges, Chaus, &c., &c.	Total.	Roads.	Bridges.	Tanks, Wells, Canals, &c., for the purposes of Irrigation.	Tanks, Wells, Canals, &c., for other purposes than Irrigation.	Total.	GRAND TOTAL.
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1837-38 ... 5,30,832 12 3	1,17,516 0 43	6,48,348 12 6	3,19,489 4 7	7,3224 1 8	47,609 1 10	38,410 7 5	12,732 15 6	17,35,913 4 4	17,35,913 4 3
1838-39 ... 5,96,688 8 64	4,00,665 1 6	9,97,334 6 11	2,91,114 0 7	21,767 7 3	41,335 0 12	38,840 7 3	32,35,891 7 5	32,35,891 7 5	
1839-40 ... 5,14,818 0 65	5,65,558 1 8	7,16,377 0 3	2,73,062 11	33,064 13 0	66,907 8 0	24,776 6 6	36,8612 9 1	19,77,668 2 1	19,77,668 2 1
1840-41 ... 6,25,013 3 10	4,11,412 6 3	10,44,425 1 1	3,03,554 4 4	70,421 4 0	39,474 2 0	15,610 11 6	42,84,099 13 4	42,84,099 13 4	
1841-42 ... 5,69,937 15 5	2,63,553 2 10	8,39,093 2 3	2,52,353 4 10	83,883 10 0	40,133 8 1	30,115 5 9	40,85,926 12 8	40,85,926 12 8	
1842-43 ... 5,30,845 7 11	3,55,332 8 7	9,6,376 0 7	2,25,065 1 7	22,577 11 3	32,701 6 10	11,433 7 8	30,08,631 12 1	30,08,631 12 1	
1843-44 ... 3,98,016 8 8	1,4,294 9 2	5,41,311 1 10	1,35,692 13 0	17,175 10 1	12,645 4 5	16,275 9 11	20,02,43 3 2	20,02,43 3 2	
1844-45 ... 6,09,687 13 2	1,46,634 13 6	7,53,722 10 8	4,18,330 6 10	6,640 7 1	36,142 11 11	33,030 15 11	35,164 9 9	25,22,161 3 11	
1845-46 ... 6,21,174 8 0	4,76,753 0 0	10,97,927 8 0	3,79,295 5 4	25,557 14 2	30,775 15 11	41,457 14 10	47,097 2 3	30,25,744 8 7	30,25,744 8 7
									Total Rupees
									37,06,686 0 0
									Average of 9 years Rupees
									4,11,854 0 0
									25,36,549 2 10
									or at 2s. per Rupee, £253,634

Embankments.—This term includes works of two kinds:—1st. Sea Walls intended to guard against encroachment from the ocean. 2nd. Internal Bunds, or Banks, constructed by the side of rivers and canals, or across the streams, and designed either to protect the country from inundation, or to direct the water most beneficially for the purposes of irrigation.